

## REMARKS

Claims 1 - 23 remain active in this application. Claims 2 - 4, 6 - 14 and 16 - 19 have been withdrawn from consideration as being non-elected, without traverse, in response to a requirement for election of species. Claims 1 - 20 and 22 have been amended, principally to improve consistency and clarity. To the extent that any amendment is substantive, support for the amendments of the claims is found throughout the application, particularly in Figures 1, 5 and 6 and the description thereof on pages 8 and 12 - 14. No new matter has been introduced into the application.

In regard to the requirement for election of species, the prior election of a boost converter and indication that claims 1, 5, 15 and 20 - 23 are readable thereon and that at least claim 1 is deemed to be generic are hereby confirmed. However, the Examiner is respectfully reminded that presentation of a traverse is not necessary to preserve a right of rejoinder upon a generic claim being found allowable and, further, that the election previously made explicitly stated that claims 2 - 4, 6 - 14 and 16 - 19 were withdrawn "pending allowance of generic claims" which clearly asserts Applicants' right to rejoinder. It is readily apparent that claim 1 is generic since non-elected species are illustrated in Figures 5A - 5F and 6 and, as further disclosed on pages 12 - 14, all such species include the circuit features recited in claim 1.

Claims 5, 15 and 20 - 23 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite; the Examiner criticizing antecedent language references. This ground of rejection is respectfully traversed as being moot in view of the amendments made above.

In this regard, the reference in the alternative to a capacitor in claim 1 has been removed and an affirmative recitation thereof made in dependent claim 20. References to antecedent recitations have been revised and are now believed to be correct, explicit and unambiguous. Accordingly, reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 1, 5, 15 and 20 - 23 have been rejected under 35 U.S.C. §102 as being anticipated by Cross. This ground of rejection is also respectfully traversed, particularly as being moot in view of the amendments made above.

Initially, it is respectfully pointed out that while Cross discloses a boost converter, it is not at all clear that the circuit including rectifier 206 can be considered to be a "steering branch" as recited in the claims as originally filed and currently rejected and which is a basic concept of the invention. Cross explicitly indicates that the circuit disclosed therein is directed to an "offset resonance, zero volt switching (ORZ) circuit and the principal function of the circuit beyond the basic boost converter circuit is to provide a switched shunt inductance 202 (switched at transistor 204) which develops a resonance with capacitor  $C_{ORZ}$  to provide zero voltage switching for transistor Q2, as discussed at column 5, line 3 to column 6, line 25. Additionally, it should be noted that this ORZ circuit of Cross is not connected in the manner claimed since the switching is provided in an explicitly claimed interconnection to "said input side". Therefore, Cross does not anticipate even independent claim 1 as originally filed.

To emphasize this distinction from Cross, claim 1 has been amended to specify that the steering branch

recited is a *passive* steering branch and thus excludes circuits which contain active switching; upon which Cross relies in order to operate in the intended manner. Therefore, it is abundantly clear that Cross does not anticipate claim 1 as now amended or any claim depending therefrom and the rejection for anticipation is clearly untenable in regard to the claims as now amended. Moreover and by the same token, any proposed modification of Cross to answer this amendatory language (e.g. omission of transistor 204) would be improper under the precedent of *In re Gordon*, 221 USPQ 1125 (Fec. Circ., 1984) since operation of Cross in the intended manner would then be precluded and, further, the additional circuit would then not be connected as recited in claim 1 as originally filed.

Additionally, to more fully recite the salient features of the invention by which the meritorious effects thereof are supported, claim 1 has been amended to recite that the converter circuit includes a winding and that the winding in the steering branch is coupled therewith. There is no disclosure of such coupling of inductor L and ORZ inductor 202 in Cross and, indeed, such coupling would be inconsistent with the development of a resonance in the manner disclosed in Cross. Therefore, the amendatory language further distinguishes the invention from Cross and the asserted ground of rejection based on Cross is even more clearly untenable.

Additionally, in this regard, it is respectfully submitted that the invention is very different from that of Cross and provides meritorious effects not contemplated by Cross. Specifically, the Examiner's attention is directed to the discussion of the voltage gain developed by the boost converter in accordance with the invention provided on pages 11 - 12 of the

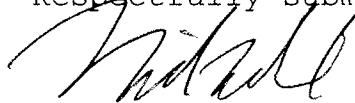
specification of this application and equation (4) in particular. it should be noted that the gain of a converter including a steering circuit concept having a winding coupled to a winding of the converter circuit (and thus functioning as a transformer - see page 9, line 4) has a gain term which is determined by the turns ratio of the coupled windings  $N_s/N_p$ . Since the windings  $L$  and  $L_{ORZ}$  are not coupled in Cross, there is no such term in the voltage gain of Cross (which can be expressed simply as  $V_o/V_{in} = 1/(1-D)$  using an analysis well-understood in the art). Thus it can be readily appreciated that the invention, as claimed, provides a function and capability of providing for a chosen voltage gain; a function not contemplated by Cross.

In summary, it is respectfully submitted that the circuitry disclosed in addition to the basic boost converter in Cross is substantially irrelevant to the steering branch circuit and concept of the invention and does not anticipate any claim in the application as originally filed and clearly not as amended above. Accordingly, it is respectfully submitted that reconsideration and withdrawal of the ground of rejection based on Cross is now in order and such actions are respectfully requested.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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